

miles south of our limits), and are of interest as they probably also occur in Kohat:—

[867.] ALAUDULA ADAMSI. The Indus Sand-Lark was common along the sandy shore wherever there were patches of vegetation; it had then paired, and one pair allowed me to watch them building their nest under the lee of some tamarisk shoots.

[1189.] PANDION HALIAËTUS. I saw one Osprey fishing.

[1419.] ESACUS RECURVIROSTRIS. I put up four Great Stone-Plovers off a stony bank.

[1503.] STERNA SEENA. The Indian River-Tern, the Black-bellied, and the Caspian were all common, especially the first two.

[1517.] RHYNCHOPS ALBICOLLIS. A flock of about thirty Scissorbills was seen flying up and down the river, occasionally resting on a sand-bank. Cry, a nasal *kap, kap*.

[1583.] ANSER INDICUS. I saw a flock of Bar-headed Geese cropping young beans.

XXXIII.—Contributions to the Ornithology of Egypt.—No. II.  
Birds of the Province of Giza.—Part 3\*. By MICHAEL  
J. NICOLL, F.Z.S., M.B.O.U.

125. CUCULUS CANORUS.

*Cuculus canorus* Shelley, p. 162.

The Cuckoo is a regular visitor during both migrations. The earliest to arrive in autumn are invariably adult birds.

I have never heard the "song" of the Cuckoo in Egypt.

126. COCCYSTES GLANDARIUS.

*Coccytes glandarius* Shelley, p. 162.

I have not personally met with the Great Spotted Cuckoo in the Province, but Dr. Walter Innes informs me that it occurs commonly in the "Sont" woods near Mazghouna.

\* Continued from p. 484.

An example was seen in the Zoological Gardens on 1st May, 1905, by Capt. Flower.

127. *ALUCO FLAMMEA KIRCHHOFFI* (Brehm).

*Strix flammea kirchhoffi* Brehm, Hartert, Nov. Zool. vii. p. 533.

The Giza Barn-Owl is darker above and more spotted below than British examples, but it is much paler than the dark European bird.

The Barn-Owl is resident in the Province, and several pairs nest in the Zoological Gardens.

128. *ASIO OTUS*.

*Asio otus* Shelley, p. 178.

During the autumn of 1906 I saw an Owl which I believe to have been of this species in the Zoological Gardens.

129. *ASIO ACCIPITRINUS*.

*Asio accipitrinus* Shelley, p. 179.

During the spring migration of 1909 I saw or obtained several examples of the Short-eared Owl in the Giza Province. Two were brought in to me alive by Bedouins, who had caught them locally. On 25th March, 1909, Mr. J. L. Bonhote and I saw three examples amongst the rocks in the desert behind the Citadel at Cairo.

130. *SYRNIUM ALUCO*.

*Strix aluco* Shelley, p. 176.

I met with the Tawny Owl twice in November 1906 and once on 7th August, 1908. On all three occasions the birds were in the Zoological Gardens.

131. *SCOPS GIU*.

*Scops giu* Shelley, p. 178.

I have only one record of the Scops Owl, *i. e.*, of a bird seen by Mr. A. L. Butler outside the main gate of the Zoological Gardens on the 26th of August, 1904.

132. *BUBO ASCALAPHUS ASCALAPHUS*.

*Bubo ascalaphus* Shelley, p. 180.

The Egyptian Eagle-Owl is resident in suitable localities in the Province. During my residence here several examples have been brought in alive by Bedouins. During

the early spring of 1909 Mr. Bonhote and I saw a pair near Aburoash, and on searching the spot from which they were disturbed found feathers and pellets containing the remains of Nightjars (*Caprimulgus aegyptius*).

133. *BUBO ASCALAPHUS DESERTORUM* Erlanger.

*Bubo ascalaphus desertorum* Erlanger, Orn. Monatsb. v. p. 192 (1897).

I have an Eagle-Owl now alive at my house which I purchased during the summer of 1907 from a native, who told me that he caught it at the Giza Pyramids. This bird, which is larger, paler, and less thickly marked with black than typical *B. ascalaphus*, is comparable to a specimen picked up dead by Capt. Flower near the Giza Pyramids and now in the Tring Museum. These two birds answer to the description of *B. a. desertorum*, and for this reason I for the present place them under that name. They are certainly very distinct from typical specimens of *B. a. ascalaphus*.

*Bubo a. desertorum* is beautifully figured in Whitaker's 'Birds of Tunisia,' vol. ii. p. 80.

134. *ATHENE NOCTUA GLAUX*.

*Carine meridionalis* Shelley, p. 178.

The southern form of the Little Owl is resident and extremely abundant in the Province. It may frequently be heard and seen during the daytime, but becomes more active and noisy at dusk and dawn.

The usual number of a brood of this species is four. I have frequently seen these Owls catch the lizards (*Agama stellio*) which are extremely abundant in the Zoological Gardens, where they were introduced from Alexandria. A number of passerine birds are killed annually in our aviaries by these Owls, which strike at them through the wire netting.

135. *GYPVS FULVUS*.

*Gyps fulvus* Shelley, p. 210.

A large Vulture which was apparently of this species was seen circling over the Zoological Gardens on the 17th of December, 1904.

One example was purchased alive locally on the 28th of Aug., 1905, and another was caught on the river a few miles south of Giza, Nov. 15th, 1905.

136. *VULTUR MONACHUS*.

*Vultur monachus* Shelley, p. 209.

Although we have not yet seen a specimen of this Vulture from the Province, there is little doubt that it does occur here.

137. *VULTUR AURICULARIS* Daud.

*Vultur auricularis* Shelley, p. 209.

A specimen of the Sociable Vulture was brought in alive in 1902, having been captured locally, and in 1907 two more living examples caught near Giza were purchased from local Bedouins. It seems possible that Egyptian examples belong to a different race, but up to the present time I have had no opportunity of comparing them with typical specimens.

138. *GYPS RUEPPELLI*.

On August 29th, 1901, two examples said to have been caught locally were purchased alive from a local Bedouin. These birds are still living in the Giza Zoological Gardens.

139. *NEOPHRON PERCNOPTERUS*.

*Neophron percnopterus* Shelley, p. 211.

Although this is the Vulture most frequently seen, it does not appear to be so common as it used to be, according to former writers on Egypt. At the present time only a few pairs seem to nest near Cairo. Occasionally it may be seen flying high over the Zoological Gardens. An example in brown plumage, evidently a bird of the year, was brought to me alive during the summer of 1907. This bird, which (with clipped wing) has the full run of my garden, is now (July 1909) little more than half white. The head and neck appear to be the first parts to change from brown to white.

140. *GYPÆTUS BARBATUS.*

Dr. A. Leith Adams in his 'Notes of a Naturalist in the Nile Valley and Malta' (1870), p. 20, mentions having seen an individual on Nov. 14th, 1863, on the summit of the Great Pyramid of Giza.

141. *CIRCUS ÆRUGINOSUS.*

*Circus æruginosus* Shelley, p. 181.

The Marsh-Harrier is not uncommon in the Province, where I have often met with it hawking over the Birseam fields.

142. *CIRCUS CINERACEUS.*

*Circus cineraceus* Shelley, p. 184.

I do not believe Montagu's Harrier to be uncommon in the Province, but as specimens of all the Harriers are very difficult to obtain and it is not easy to identify them on the wing, at all events in immature plumage: it is, therefore, hard to say whether the present species or the Pallid Harrier is the commoner. On April 18th, 1908, a fine adult Montagu's Harrier was brought in to me alive by a Bedouin who had caught it at Aburoash. As regards the breeding of this species in the Province I can say nothing, as I have no actual records of nests of any of the Harriers being found here.

143. *CIRCUS SWAINSONI.*

*Circus pallidus* Shelley, p. 183.

An adult male Pallid Harrier was presented alive to the Gardens by H.H. Prince Kamal el Din Pacha on Dec. 29th, 1908. I have on one or two occasions during the winter months identified individuals of this handsome Harrier flying over the Birseam fields. On the 6th of September and the 22nd of October, 1908, I saw adult examples of this bird flying over the Zoological Gardens.

144. *BUTEO VULGARIS DESERTORUM.*

*Buteo desertorum* Shelley, p. 201.

This form of the Common Buzzard is resident and not uncommon in the Province, where it breeds. I have not met with typical *B. vulgaris* in Egypt up to the present time.

## 145. BUTEO FEROX.

*Buteo ferox* Shelley, p. 201.

The Long-legged Buzzard is not uncommon during the autumn, winter, and spring. At present I have no records of the nesting of this species in the Province, though it is quite possible that it may do so.

## 146. ARCHIBUTEO LAGOPUS.

The Rough-legged Buzzard is a regular visitor to the Province during the autumn migration. During August and September, 1908, an individual frequented the Zoological Gardens.

This species is not included by Shelley in his 'Birds of Egypt.'

## 147. AQUILA CLANGA.

?*Aquila naevia* Shelley, p. 206.

This Spotted Eagle is not uncommon. I have seen it in autumn—during the flood—perched on the walls of the native wells (sarkaias). On the 7th of April, 1909, I saw an example in the Wadi Hof near Helwan.

Several examples, caught locally, have been presented alive to the Giza Zoological Gardens by H.H. Prince Kamal el Din Pasha.

## 148. AQUILA IMPERIALIS Bechst.

*Aquila imperialis* Shelley, p. 205.

The Imperial Eagle seems to be the common Eagle of the Province, and I have little doubt that it breeds in suitable localities, though up to the present time I have no positive records of it doing so. The majority of examples that I have met with were immature birds, and this is scarcely surprising, as this Eagle takes several years to assume adult plumage. Individuals presented to the Giza Zoological Gardens in the winter of 1906 are still, though in the best of health, in immature plumage.

## 149. CIRCAËTUS GALLICUS.

*Circaëtus gallicus* Shelley, p. 202.

At present I have but one record of the Short-toed Eagle

in the Province, *i. e.*, an example seen by myself not far from the Giza Pyramids during the early winter of 1907.

150. *NISAËTUS FASCIATUS.*

*Aquila bonellii* Shelley, p. 206.

Bonelli's Eagle is not uncommon during the time of the flood, *i. e.*, in late autumn. I have frequently met with it amongst the scattered "Sont" trees in the cultivated ground near Giza. I have no records of this species during the spring or summer months.

151. *ACCIPITER BREVIPES.*

Of the Levant Sparrow-Hawk, which is not mentioned by Shelley, I have but one positive record, *i. e.*, a male obtained by myself in the Zoological Gardens on September the 18th, 1908. This species differs from the Common Sparrow-Hawk in having the markings on the under parts in the shape of "drops" and not bars; a narrow black line extends down the centre of the chin and upper throat. The central pair of rectrices is plain and not barred, while the middle toe is considerably shorter, and not so noticeably longer than the others, as is the case with *Accipiter nisus*. Since I obtained my example I have seen Sparrow-Hawks which I fancy were referable to this species, but as I have procured no further examples I cannot say positively.

152. *ACCIPITER NISUS.*

*Accipiter nisus* Shelley, p. 185.

The Sparrow-Hawk is a common bird in the Province during the autumn, winter, and early spring, but I have at present no records of it breeding with us. Numbers haunt the Zoological Gardens, and the frequency with which I come across piles of feathers of small passerine birds testifies to the havoc wrought by this Hawk.

153. *MILVUS MIGRANS ÆGYPTIUS.*

*Milvus ægyptius* Shelley, p. 196.

The Egyptian or Yellow-billed Kite is abundant and resident. Great numbers frequent the Zoological Gardens and every suitable tree contains a Kite's nest. This bird

is exceedingly bold and mischievous. I have seen it snatch meat from the hands of the keepers walking through the Gardens, and on several occasions have observed it grab a fish from the bill of a Jabiru Stork! On one occasion a Kite took away a puttee from one of our men, and on another occasion the head keeper reported that a Kite had stolen a white skull-cap from the head of the boy who feeds and looks after our three examples of *Balæniceps rex*.

For a short time after leaving the nest the young of this species have black bills, but in healthy birds these soon turn waxy yellow. I have, however, seen examples of "adults" in midsummer with black bills, but feel sure that this is a sign of ill-health, for all these individuals had the plumage much worn, and were, moreover, infested with feather-lice.

154. *PERNIS APIVORUS*.

*Pernis apivorus* Shelley, p. 199.

The Honey-Buzzard is an autumn visitor to the Province. I have no records of its occurrence at other times of the year. One individual frequented the Zoological Gardens during August 1906.

155. *FALCO PEREGRINUS*.

*Falco peregrinus* Shelley, p. 186.

The Peregrine is possibly resident throughout the year, but personally I have only met with it from autumn to early spring. I have at present no skins of this species from Egypt, and have, to the best of my belief, not met with *F. punicus*, which should occur here.

A magnificent specimen of *F. peregrinus* has been an inmate of one of our cages in the Gardens for the past seven years and is still in the best of health.

During the late autumn and winter of 1908 Dotterel (*Eudromias morinellus*) were very abundant on the edge of the desert near the Giza Pyramids, and possibly it was owing to this fact that Peregrines were also numerous. The ground was littered with tufts of Dotterels' feathers, and I frequently saw Peregrines dash down from the desert and strike



Dotterels from the flocks assembled on the edge of the cultivated lands.

156. *FALCO BARBARUS.*

*Falco barbarus* Shelley, p. 187.

On September 27th, 1908, I saw two Barbary Falcons circling over the lake in the Zoological Gardens. This is the only record I have at present of this species occurring in the Province.

157. *FALCO FELDEGGI.*

*Falco lanarius* Shelley, p. 188.

The Lanner Falcon appears to be resident in the Province, but is, I believe, far less abundant than the Peregrine. Major Sparrow tells me that he took eggs of this species from the second pyramid about fourteen years ago, and that this year (1909) he saw the adult birds at the same place but was unable to get to the nest.

I have seen Falcons flying over the Zoological Gardens which I believe to be Lanners, but unless I have specimens of these larger Falcons in my hand, I find it almost impossible to say to which species they belong.

158. [*FALCO SACER.*]

*Falco sacer* Shelley, p. 190.

I include the Saker Falcon with hesitation, as I have not actually examined specimens from the Province. I have a skin of this Falcon which was said to have come from Beni Suef, immediately south of the Giza Province. Moreover, I have occasionally seen Falcons flying past me near the Zoological Gardens which I have little doubt were referable to this species.

159. *FALCO SUBBUTEO.*

*Falco subbuteo* Shelley, p. 192.

The Hobby is of frequent occurrence here during the autumn and winter months.

160. *FALCO ÆSALON.*

*Falco æsalon* Shelley, p. 191.

The Merlin is abundant in the Province during the winter

months; up to the present time I have no records of it nesting here.

161. *FALCO VESPERTINUS.*

*Falco vespertinus* Shelley, p. 193.

I have met with the Red-footed Falcon on one occasion only in the Province, *i. e.*, an adult male on the 2nd of October, 1908, in the Zoological Gardens, though it is probably a regular visitor on migration.

162. *TINNUNCULUS ALAUDARIUS.*

*Falco tinnunculus* Shelley, p. 194.

The Kestrel which is abundant and resident in Egypt seems smaller and darker than British examples. I have not yet been able to examine a sufficiently large series of adults from this country to come to any definite conclusion. I have not met with *Falco cenchris* in the Province up to the present time.

163. *PANDION HALIAËTUS.*

*Pandion haliaëtus* Shelley, p. 203.

The Osprey is a common visitor to the Province during the autumn and winter months, being especially noticeable during the flood, when several pairs may be met with near the Giza Pyramids.

164. *PHALACROCORAX CARBO.*

*Phalacrocorax carbo* Shelley, p. 295.

On the 14th of December, 1907, Col. E. Ludlow, A.S.C., shot an example of this species at Giza, which he kindly presented to me. It was in company with thirteen others. A week or so later I saw a Cormorant sitting on a small tree close to the Kasr el Nil Bridge at Cairo. Finally, on February the 9th, 1909, a flock of ten Cormorants flew low over the Zoological Gardens.

165. *PELECANUS ONOCROTALUS.*

*Pelecanus onocrotalus* Shelley, p. 293.

During the inundations in autumn flocks of this Pelican may be met with, and I have sometimes seen hundreds together. Single individuals or small flocks are

frequently seen flying over the Zoological Gardens during the spring, autumn, and winter months. In its first plumage this bird is of a dull chocolate-brown, but by the following summer the plumage is white with the exception of the scapulars and wings, which are spangled with dusky brown.

In its adult plumage it has a beautiful roseate tinge, but the colour fades in dried skins.

166. PELECANUS RUFESCENS.

Capt. Flower informs me that this species of Pelican visits the Province, for on the 8th or 9th of August, 1905, he saw an example on the Nile between Beni Suef and Giza.

167. ARDEA CINEREA.

*Ardea cinerea* Shelley, p. 266.

The Grey Heron is abundant during the autumn, winter, and spring months. I have little doubt that a pair bred in, or near, the Zoological Gardens this year (1909), for on April the 13th a very young bird appeared in the Gardens—so young that it could only just fly. A pair of adults had been observed in the same place throughout the winter and until the second week in April.

168. ARDEA ALBA.

*Herodias alba* Shelley, p. 267.

A Great White Heron was seen by Capt. Flower in the Zoological Gardens on the 3rd and 5th of June, 1904.

169. ARDEA PURPUREA.

*Ardea purpurea* Shelley, p. 266.

The Purple Heron is a spring and autumn visitor to the Province of Giza. During the month of September 1908 four individuals of this species frequented the Zoological Gardens for a few days.

170. ARDEA GARZETTA.

*Herodias garzetta* Shelley, p. 268.

This Egret has been seen eight times in the Zoological Gardens, where it frequently consorts with the Night-

Hérons. In September 1908 I saw a single example near the Giza Pyramids.

171. ARDEA BUBULCUS.

*Ardeola russata* Shelley, p. 268.

The Buff-backed Heron—the “Sacred Ibis” of tourists, according to their dragomans—is now becoming much less abundant than it formerly was. Owing to the high price paid for its “plumes” and the snowy whiteness of its feathers this bird falls a victim to the multitude of “sportsmen” with which Egypt teems. Every autumn during the flooding of the country by the Nile this bird appears, but in constantly decreasing numbers. There is little doubt that it would, if spared, do an immense amount of good in clearing off the “cotton worm”; but its appearance is at once a signal for its destruction, and this is greatly facilitated by its tame and unsuspecting character, so that it seems likely that in the near future this handsome and useful Heron will become a rare bird in Egypt. Those interested in this subject are referred to an article by Dr. Walter F. Innes Bey which appeared in the ‘Egyptian Gazette’ for the 5th and 6th of January, 1903.

172. ARDETTA MINUTA.

*Botaurus minutus* Shelley, p. 271.

Owing to its retiring habits the Little Bittern is not often met with, though it occurs in all suitable localities and breeds in Egypt. I have frequently seen examples offered for sale alive to these Gardens which have been caught locally; but although I have observed many in other parts of Egypt I have only once met with this bird alive in this Province, an adult male having been seen in the Zoological Gardens on April 26th, 1909.

173. NYCTICORAX GRISEUS.

*Nycticorax griseus* Shelley, p. 270.

For the occurrence of the Night-Heron in the Giza Province see Special Report, No. 3.—“Wild Birds of the Giza Gardens, 1898–1908,” Cairo National Printing Departm., 1908.

I may further state that I have seen Night-Herons in small numbers in the grounds of the Khedivial Sporting Club at Gezireh.

174. *BOTAURUS STELLARIS.*

*Botaurus stellaris* Shelley, p. 271.

During the winter of 1906 Mr. G. Paget, of the Coldstream Guards, shot a Bittern near the Giza Pyramids. This specimen he kindly presented to me.

I have never personally met with this species in the Province.

175. *CICONIA ALBA.*

*Ciconia alba* Shelley, p. 265.

The White Stork is a regular visitor, during both migrations, to the Giza Province.

176. *PLATALEA LEUCORODIA.*

*Platalea leucorodia* Shelley, p. 264.

On the 3rd of September, 1902, a flock of Spoonbills was seen by Captain Flower and Mr. A. L. Butler flying over the Zoological Gardens, and on the 20th of October, 1906, we saw a single example under the same conditions.

177. *PLEGADIS FALCINELLUS.*

*Ibis falcinellus* Shelley, p. 262.

During the evening of the 18th of April, 1909, six Glossy Ibises circled round the Zoological Gardens and finally settled in a clump of fir-trees, evidently with the intention of "roosting" there. They were, however, driven away by some Hooded Crows.

178. *ANSER ALBIFRONS.*

*Anser albifrons* Shelley, p. 280.

The White-fronted Goose appears to be a regular visitor to the Province.

I have two specimens, an adult male and an immature female, both shot at Ghatta on the 18th of December, 1908, by Major R. Sparrow, who kindly presented them to me.

## 179. ANSER ERYTHROPUS.

*Anser erythropus* Gurney, 'Rambles of a Naturalist,' p. 221.

A Lesser White-fronted Goose was presented alive to the Giza Zoological Gardens by H.H. Prince Kamal el Din Pasha, who had secured it near Giza on the 29th or 30th of January, 1907.

Mr. J. H. Gurney was the first to record this Goose as occurring in Egypt. Capt. Shelley did not meet with it.

## 180. TADORNA CORNUTA.

*Tadorna vulpanser* Fleming ; Shelley, p. 281.

On the 4th of December, 1906, Mr. E. W. Buckley shot a pair of Sheldrakes which he kindly sent to me. These two birds were obtained at Gizr el Ramal in the Giza Province.

## 181. TADORNA CASARCA.

*Tadorna rutila* Shelley, p. 282.

The Ruddy Sheldrake is not uncommon during the winter months.

On the 25th of November, 1906, I saw nine of these birds feeding in some short grass near the edge of the desert between the Pyramids of Giza and Sakkara.

## 182. ANAS BOSCHAS.

*Anas boschas* Shelley, p. 283.

The Mallard is by no means abundant in the Province. I have occasionally seen one or two examples in the Zoological Gardens Lake and have sometimes met with it on the flood, but it is never nearly so abundant as the Shoveller or Pintail. On one occasion, however, Capt. Flower counted ten on the Lake.

## 183. ANAS STREPERA.

*Anas strepera* Shelley, p. 283.

The only record I have of the Gadwall in the Province is of a male seen by myself on the 10th of December, 1906, on the Zoological Gardens Lake. It probably occurs on the flood, however, for it is not an uncommon bird in the Delta during the winter.

## 184. SPATULA CLYPEATA.

*Rhynchaspis clypeata* Shelley, p. 285.

Next to the Teal the Shoveller is the commonest Duck in the Province. At least five hundred spend the day on the Lake in the Zoological Gardens during the winter months.

## 185. QUERQUEDULA CRECCA.

*Querquedula crecca* Shelley, p. 286.

The Teal is the commonest Duck in the Province. Several hundred spend the day on the Zoological Gardens Lake during the winter months. In certain years a few arrive late in August and some remain till the first or even the beginning of the second week in May.

On their arrival nearly all the adult males are in full eclipse plumage and gradually change to their winter dress. The younger males assume their winter garb after their arrival here, and seldom show red on the head—the first part to change—until the adults are in full or nearly full winter plumage.

At dusk all the Ducks leave this lake and return before dawn. During the winter of 1906 a partial albino female Teal was frequently noticed on our lake.

## 186. QUERQUEDULA CIRCIA.

*Querquedula circia* Shelley, p. 287.

The Garganey, although less numerous than the Teal, is not uncommon in the Province. It seems to arrive in September and I believe passes on almost immediately, though I noticed and shot one on the 17th of November, 1908. On the 22nd of September, 1908, I saw several on the flooded ground near the Giza Pyramids.

## 187. DAFILA ACUTA.

*Dafila acuta* Shelley, p. 284.

The Pintail is a common winter visitor.

## 188. MARECA PENELOPE.

*Mareca penelope* Shelley, p. 288.

The Wigeon is another abundant winter visitor, but not

so numerous in the Province, apparently, as it is in the Delta and on Lake Menzaleh.

189. *FULIGULA FERINA*.

*Fuligula ferina* Shelley, p. 287.

The Pochard is abundant in the Province during the inundation.

190. *FULIGULA RUFINA*.

The Red-crested Pochard, although not met with by Shelley, seems to be not uncommon in Egypt.

I have two records from the Province. On the 9th of September, 1902, two birds were seen by Capt. Flower and Mr. A. L. Butler flying over the Zoological Gardens; and Dr. Walter Innes Bey tells me that during the winter of 1908-9 he observed this species on the Nile near Giza.

191. *FULIGULA CRISTATA*.

*Fuligula cristata* Shelley, p. 290.

The Tufted Duck is a common winter visitor to the Province.

192. *FULIGULA NYROCA*.

*Nyroca leucophthalma* Shelley, p. 288.

The Ferruginous Duck is another common winter visitor to the district.

193. *MERGUS MERGANSER*.

During the winter of 1907 a Goosander frequented the flooded ground near Giza, and was seen by both Capt. J. W. H. Seppings and myself.

I believe I have once seen a Red-breasted Merganser, *M. serrator*, near Giza, but it was at too great a distance to be positively identified.

194. *MERGUS ALBELLUS*.

An adult male was shot at Ghatta on the 9th of January, 1903, by Mr. M. de C. Findley, who kindly presented it to our collection. This appears to be the first record of the Smew from Egypt.



195. COLUMBA LIVIA LIVIA.

COLUMBA LIVIA SCHIMPERI.

Shelley, pp. 211-212.

Both these forms of Rock-Dove occur in the Province, but I cannot believe that any examples I have seen are "pure bred," owing to the enormous numbers of domestic Pigeons which live in a semi-wild state over the whole of Egypt. In isolated places away from human habitations the wild Pigeons may be pure bred, but there is no place that I know of in the Giza Province far enough away from villages for the Pigeons to be isolated.

196. TURTUR COMMUNIS COMMUNIS.

*Turtur auritus* Shelley, p. 214.

Great numbers of Turtle-Doves pass through the Province during both migrations.

197. TURTUR COMMUNIS ISABELLINUS.

*Turtur sharpii* Shelley, p. 215.

This subspecies of Turtle-Dove passes through the Province in some numbers slightly later than the common form. It is difficult to distinguish it from *T. c. communis* when seen flying, but I have positively identified numbers in the Zoological Gardens during both migrations.

198. TURTUR SENEGALENSIS ÆGYPTIACUS.

*Turtur senegalensis* Shelley, p. 217.

This form of the Senegal Dove is very abundant and resident in the Province. It is a tame bird and frequents houses, especially during the nesting-season. The male is easily distinguishable from the female by its richer coloration.

199. CACCABIS CHUKAR (?).

I insert this Red-legged Partridge on the strength of footmarks of a large Partridge found by myself in the Wadi Hof. I have no specimens, but as we have living examples said to have been obtained at El Arish it is quite likely to occur on the deserts of the Province.

200. *AMMOPERDIX HEYI HEYI.*

*Ammoperdix heyi* Shelley, p. 222.

This handsome little Rock-Partridge has been met with in the Wadi Hof near Helwan, which is the only locality I at present know of in the Province for the bird. I have an adult male which I shot there on the 31st of December, 1908. This example lacks the white forehead and lores which are present in most adult male specimens of *A. heyi* that I have examined, but in this respect it agrees with a specimen from Palestine in the Tring Museum.

*Ammoperdix cholmleyi* was described by Mr. Ogilvie-Grant as distinguishable from *A. heyi* by being darker above and having *no white* on the forehead and lores. This is borne out by most specimens; but although I have not yet seen a specimen of *A. cholmleyi* with a white forehead, I have seen several males of *A. heyi*, besides the two previously mentioned, which have no white on the forehead and lores. Thus it seems that *Ammoperdix cholmleyi* is only to be distinguished from *A. heyi* by the darker coloration of the upper parts, and this I find to be the case on examination of the types of *A. cholmleyi*. In the latter, moreover, the rump is more distinctly barred than in *A. heyi*.

In the typical form, *A. heyi*, the upper parts, mantle, wing-coverts, and scapulars are sandy buff with a pinkish tinge. The lores and forehead are *with or without* white. In *A. cholmleyi* the upper parts are *vinaceous* and the lower back, rump, and upper tail-coverts more distinctly barred. The forehead and lores are *not* white. It should be pointed out that specimens of these two forms are by no means plentiful in collections and that their range is by no means clearly worked out. It would seem that both *A. heyi heyi* and *A. h. cholmleyi* occur in Egypt, but "Egypt" is a somewhat elastic term for a locality, and birds labelled "Egypt" are practically useless unless we know the exact range of the species or subspecies in question.

Specimens of Hey's Partridge are very difficult to obtain, as they trust more to their running powers than to flight, and invariably run away up the sides of the valleys, while always keeping just out of gunshot.

The call-note of this Partridge, although soft and sweet, is audible for a considerable distance in the silent desert valleys, and were it not for this the bird might easily be passed over, so well does its colour harmonize with its surroundings. I have so far never seen more than two individuals together, but my experience of this species in a wild state has been limited, though during the past three years I have had no fewer than fifty birds under observation in captivity. There appears to be no seasonable variation in the change of colour in this species. The eggs are similar in colour to those of Buff Orpington Fowls.

201. COTURNIX COMMUNIS.

*Coturnix communis* Shelley, p. 223.

The Quail is a regular visitor during the spring and autumn migrations, but is far more abundant during the former season. A few pairs breed in the Province.

202. PORZANA MARUETTA.

*Porzana maruetta* Shelley, p. 274.

The Spotted Crake is a regular visitor during the autumn migration. I have no records of its occurrence here in spring.

203. CREX PRATENSIS.

*Ortygometra crex* Shelley, p. 274.

I have but one record of the occurrence of the Land-Rail in the Province, though there can be little doubt that it is a regular visitor on migration. On the 29th of September, 1908, one of our keepers allowed a Siskin to escape from its cage. I gave him a butterfly-net and told him to catch it again. Half an hour later he brought me a Land-Rail which he had caught in some long grass in the Gardens.

204. GALLINULA CHLOROPUS.

*Gallinula chloropus* Shelley, p. 275.

A few Moorhens arrive in the Zoological Gardens in the autumn, sometimes as early as September, and some remain till the end of April or beginning of May. In April 1905 a pair bred on one of our lakes. This is the only record I have of this species nesting in the province, but it breeds abundantly in the Delta.

205. *FULICA ATRA.*

*Fulica atra* Shelley, p. 278.

The Common Coot is very abundant in the Province during the inundation of the Nile. It occasionally occurs in the Zoological Gardens during the winter.

We have never met with *Fulica cristata*.

206. *GRUS COMMUNIS.*

*Grus cinerea* Shelley, p. 263.

Common during migration.

207. *GRUS VIRGO.*

*Grus virgo* Shelley, p. 264.

Although I have never seen the Demoiselle Crane in Egypt there is no doubt that it passes through the Province during its migrations.

208. *ÆDICNEMUS CREPITANS.*

*Ædicnemus crepitans* Shelley, p. 230.

The Stone-Curlew is undoubtedly a breeding species, as we have several living in the aviaries of the Zoological Gardens which were brought in by Bedouins when quite young. I fancy, however, that *Æ. senegalensis* is the commoner species.

209. *ÆDICNEMUS SENEGALENSIS.*

*Ædicnemus scolopax* Flower & Nicoll, Special Report No. 3, Zoological Gardens, Giza (1908), p. 25.

This species appears to be a common resident in the Province, and I have every reason to believe that the majority, if not all, of those which frequent the Zoological Gardens belong to this form. Certainly the pair mentioned in our Report of the Wild Birds of the Giza Gardens (p. 25) belong to it, and so do all others which I have seen here since at close enough quarters to identify them with certainty. So far as I can ascertain, this species has not before been recorded in Egypt north of Aswan.

A pair which live wild in the Giza Zoological Gardens frequent a large Ostrich enclosure, where throughout the day

they may always be seen sitting under a large straggling pepper-tree. During the summer of 1907 this pair reared a brood of *three* young, all of which I saw when they were a few days old, in company with their parents. They again bred in 1908, and I caught a full-grown youngster by chasing it at night with a lantern. It became confused by the rays of the light, and allowed itself to be picked up. This example is still living in our aviaries.

The down-plumage of *Æ. senegalensis* appears to be much more sandy than that of *Æ. crepitans*.

#### 210. GLAREOLA PRATINCOLA.

*Glareola pratincola* Shelley, p. 227.

As soon as the country near Giza becomes inundated by the Nile in the autumn Pratincoles appear in great numbers. I have seen large flocks near the Pyramids of Giza. A few reappear during the spring migration.

#### 211. GLAREOLA PRATINCOLA MELANOPTERA.

*Glareola nordmanni* Fischer; Shelley, p. 229.

At present I consider it advisable to separate the Black-winged Pratincole as a subspecies, though it seems possible that it is only a variety of the common form. Specimens having the axillaries and under wing-coverts black occur in the Province in the percentage of about one to ten of the common form.

In the black-winged form the secondaries are not tipped with white as they are in *G. p. pratincola*, but in the latter these white tips are very narrow indeed.

#### 212. CURSORIUS GALLICUS.

*Cursorius gallicus* Shelley, p. 229.

The Cream-coloured Courser may be frequently met with on the edge of the desert near the Pyramids of Giza during the winter and early spring.

In a fresh state the legs of this bird are like those of *Alaemon alaudipes*—china-white with an enamelled appearance. This peculiarity, however, is not noticeable in dried skins.

213. *CHARADRIUS PLUVIALIS.*

*Charadrius pluvialis* Shelley, p. 235.

The Golden Plover is an uncommon visitor during the winter months.

214. *ÆGIALITIS PECUARIA.*

*Ægialitis pecuarius* Shelley, p. 239.

This handsome little Plover is abundant during the autumn, winter, and spring. At present I have had no opportunities for observing it during the summer, but it seems probable that it nests in the Province, for it undoubtedly does so in the Fayoum, and it seems most unlikely that it would, *after* breeding, migrate *northwards*.

215. *ÆGIALITIS CANTIANA.*

*Ægialitis cantianus* Shelley, p. 240.

The Kentish Plover is a most abundant bird in the Province during autumn, winter, and spring, and doubtless nests in suitable localities. On Lake Menzaleh, near Damietta, great numbers breed.

216. *ÆGIALITIS CURONICA.*

*Ægialitis minor* Shelley, p. 242.

Up to the present time I have only met with the Little Ringed Plover in the Province during the autumn and winter. It seems more partial to damp cultivated ground than to the pools left on the desert-edge, which are always frequented by the Kentish Plover.

217. *ÆGIALITIS HIATICOLA INTERMEDIA.*

*Ægialitis intermedius* (Ménétr.); Shelley, p. 242.

For the present I include all the Ringed Plovers which I have obtained here under the above-mentioned name. They are smaller than typical *Æ. hiaticola*, especially as regards the bill.

This Plover is common during the autumn, winter, and spring, but we have no record of its nesting.

218. *EUDROMIAS MORINELLUS.*

*Eudromias morinellus* (Linn.); Shelley, p. 236.

During the winter of 1908–9 large flocks of Dotterels,

both adult and immature, frequented the desert-edge between the Pyramids of Giza and Sakkara. Many were killed by the Falcons, which seemed to be in unusual numbers, and it is probable that many more fell victims to "sportsmen."

219. HOPLOPTERUS SPINOSUS.

*Hoplopterus spinosus* Shelley, p. 232.

The Spur-winged Plover is abundant in suitable localities throughout the Province, where it nests. Two young birds were brought in alive on July the 19th, 1909, by Capt. E. S. Jackson, who had caught them at Ayat.

220. VANELLUS VULGARIS.

*Vanellus cristatus* Shelley, p. 231.

The Lapwing is a common winter visitor, departing in spring.

221. CHETTUSIA LEUCURA.

*Chettusia villotæi* Shelley, p. 233.

I have only once met with this graceful "Lapwing" in the Province, *i. e.* on the 17th of November, 1908, when I saw a pair of immature birds and obtained one of them.

222. HIMANTOPUS CANDIDUS.

*Himantopus candidus* Shelley, p. 260.

The Black-winged Stilt is a visitor on migration in small numbers.

223. SCOLOPAX RUSTICULA.

*Scolopax rusticola* Shelley, p. 247.

The Woodcock is a visitor in small numbers during the winter. One at least frequents the Zoological Gardens every winter.

224. GALLINAGO CÆLESTIS.

*Gallinago media* Leach; Shelley, p. 249.

The Snipe is abundant in the Province from September to March.

On September 14th, 1908, I shot two Snipes from a flock of at least thirty individuals, which were circling over some inundated land near Giza.

## 225. GALLINAGO GALLINULA.

*Gallinago gallinula* Shelley, p. 249.

The Jack Snipe winters in the Province, but is less abundant than the "full" Snipe.

## 226. RHYNCHÆA CAPENSIS.

*Rhynchæa capensis* Shelley, p. 250.

The Painted Snipe is of regular occurrence during the winter months, but is not very abundant.

## 227. TRINGA ALPINA.

*Tringa cinclus* Linn.; Shelley, p. 253.

The Dunlin appears in small numbers during the inundation, which coincides with the autumn migration.

I have not met with this species in spring in the Province.

## 228. TRINGA MINUTA.

*Tringa minuta* Shelley, p. 251.

The Little Stint is, with, perhaps, the exception of the Kentish Plover, the most abundant Wader during the winter months. It arrives in flocks in the autumn, and from that time onward may be met with in quantities in suitable places. I have often seen it round the village ponds, where it consorts with *Ægialitis pecuaria*.

## 229. TRINGA TEMMINCKI.

*Tringa temminckii* Shelley, p. 252.

Temminck's Stint is far less abundant than the former species, and, like it, is a winter visitor.

## 230. TRINGA SUBARQUATA.

*Tringa subarquata* Shelley, p. 254.

Once or twice during the autumn of 1907 I met with the Curlew-Sandpiper on some flooded ground near the Giza Pyramids.

## 231. TRINGA CANUTUS.

I saw small flocks of Knots near Giza during the autumn of 1907.

This bird has not previously been recorded from Egypt. The first example obtained in the country seems to be one



shot from a small flock near Suez on the 5th of March, 1903, by Capt. Flower.

In March 1909 Mr. J. L. Bonhote and I saw several flocks of this species in the Fayoum on the shores of Lake Birket el Karun.

232. MACHETES PUGNAX.

*Machetes pugnax* Shelley, p. 246.

Ruffs and Reeves are abundant during the inundation in September, October, and November.

I have never seen a male in full plumage here, but have the skin of an adult Reeve, in worn summer plumage, shot by Capt. J. W. H. Seppings in September 1906.

233. TOTANUS HYPOLEUCUS.

*Actitis hypoleucos* Shelley, p. 259.

This Sandpiper is of common occurrence during the spring and autumn migrations, and may frequently be seen during the winter months.

234. TOTANUS OCHROPUS.

*Totanus ochropus* Shelley, p. 258.

Not uncommon from autumn to early spring.

235. TOTANUS GLAREOLA.

*Totanus glareola* Shelley, p. 259.

I have records of this species in the Province in autumn and winter. It occurs in flocks, great numbers being sometimes seen together.

236. TOTANUS STAGNATILIS.

*Totanus stagnatilis* Shelley, p. 257.

The Marsh-Sandpiper is not uncommon during the late autumn and winter, but is usually met with singly or in pairs.

237. TOTANUS CALIDRIS.

*Totanus calidris* Shelley, p. 255.

Fairly common throughout the winter months.

238. TOTANUS FUSCUS.

*Totanus fuscus* Shelley, p. 255.

Occasionally seen during the winter.

## 239. TOTANUS CANESCENS.

*Totanus canescens* Shelley, p. 256.

A few Greenshanks may be met with throughout the winter and spring.

## 240. LIMOSA BELGICA.

*Limosa egocephala* Shelley, p. 245.

Black-tailed Godwits are most abundant in the autumn, during the flooding of the country round about Giza.

## 241. NUMENIUS ARQUATA.

*Numenius arquata* Shelley, p. 243.

I have seen Curlews on many occasions from September to May.

## 242. STERNA FLUVIATILIS vel MACRURA.

*Sterna fluviatilis* } Shelley, p. 299.  
*Sterna hirundo* }

I have seen either Common or Arctic Terns on the flooded country, but have no specimens of them.

## 243. STERNA ANGLICA.

*Sterna anglica* Shelley, p. 297.

A few Gull-billed Terns frequent the country near Giza during the inundations.

I have an example obtained on the 28th of November, 1907.

## 244. STERNA CANTIACA.

*Sterna cantiaca* Shelley, p. 297.

A few frequent the flooded country near Giza during the autumn.

## 245. HYDROCHELIDON HYBRIDA.

*Hydrochelidon nigra* (Linn.); Shelley, p. 301.

A few were seen during September 1908, near Giza.

## 246. LARUS RIDIBUNDUS.

*Larus ridibundus* Shelley, p. 309.

Black-headed Gulls are frequently seen, sometimes in flocks, flying up the river outside the Zoological Gardens, in winter and early spring.

## 247. LARUS ARGENTATUS.

*Larus argentatus* Shelley, p. 305.

## 248. LARUS CACHINNANS.

*Larus cachinnans* Shelley, p. 306.

Both species of Herring-Gulls are occasionally seen on the river at Giza, as well as on the flooded country. At a distance it is not always possible to distinguish them, especially as *L. cachinnans* is often as light on the mantle as *L. argentatus*, but I have at times positively identified both forms.

## 249. LARUS FUSCUS.

*Larus fuscus* Shelley, p. 304.

The Lesser Black-backed Gull is frequently met with from autumn to late spring.

## 250. PODICIPES FLUVIATILIS.

*Podiceps minor* Shelley, p. 314.

On February 14th, 1908, I saw a Grebe, which I believe to have been of this species, on a pool close to the railway between Cairo and Helwan.

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Since the publication of the first part of this paper a certain amount of additional information has come to hand, and examples of several species not included in it have been obtained by myself or my friends in the Province of Giza. A few corrections in nomenclature are also advisable. During June last I was enabled, by the kind permission of the Hon. W. Rothschild and Dr. E. Hartert, to compare the majority of my birds with the fine and well-cared-for collection in the Tring Museum, and thus had the opportunity of comparing several of my skins with the types in the Brehm collection. For this privilege, and also for their kind help in identifying many birds which I have been unable to examine personally, I wish to record my best thanks to Mr. Rothschild and Dr. Hartert. My best thanks are also due to Dr. Sharpe and Mr. Ogilvie-Grant, who have given me much help while working at my collections in the British Museum.

With the Editors' permission, I hope, at some future time, to write an Appendix to the Birds of Giza, and thus bring the list "up to date" as far as possible.